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RESEARCH AID

UNIDENTIFIED CAPITAL INVESTMENT IN THE SOVIET SEVEN YEAR PLAN (1959-65)



CIA/RR RA 59-15

November 1959

CENTRAL INTELLIGENCE AGENCY

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UNIDENTIFIED CAPITAL INVESTMENT
IN THE SOVIET SEVEN YEAR PLAN (1959-65)*

Summary

After an attempt to determine the structure of Soviet capital investment by sector and by industry for 1952-58 and for the Seven Year Plan (1959-65), a residue of capital investment has been isolated which, it is hypothesized, consists of categories of investment which are primarily military oriented.** It is believed that the industrial portion of the residue consists of capital investment in production facilities of the aviation industry, shipbuilding, the radiotechnical industry, and weapons and munitions. The nonindustrial portion is postulated to consist primarily of capital investment in military installations such as airfields, ports, bases, and missile sites.

Analysis of the pattern of expenditure which appears to be planned for 1959-65 indicates an apparent intention to reduce the absolute level of the industrial component of the residual by at least 40 percent below the 54 billion rubles*** spent during 1952-58. The non-industrial component of the residual appears to be slated for an increase of at least 143 percent above the 1952-58 total of 29 billion rubles.

I. Introduction

Utilization of information published on the Soviet Seven Year Plan (1959-65) has resulted in the isolation of a residue of unidentified capital investment totaling 102 billion rubles for 1959-65.

* The estimates and conclusions in this research aid represent the best judgment of this Office as of 15 October 1959.

** Although it is hypothesized that the residue consists of investment categories which are primarily military oriented, it is not the intention to arrive at an estimated total of all such investments.

*** Ruble valuations throughout this research aid refer to the capital investment planning ruble -- the July 1955 ruble as modified by the revised unit valuations of 1956. The conversion to dollar values at the official rate of exchange of 4 rubles to US \$1 would lead to some overstatement of the aggregate value. Because the appropriate conversion ratio varies widely according to the types of equipment and construction involved, its determination is beyond the scope of this research aid.

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It is advanced as a hypothesis that this residue consists of productive capital investment which is primarily directed into support of the military capability of the USSR -- that is, investment in fixed military installations and in industries primarily oriented toward the actual or potential production of military end items.

This research aid (1) presents the methodology by which the investment residue was isolated and (2) attempts to determine the nature of the residue. In this context, establishment of the methodology is an essential function, whereas substantive evaluation of the conclusions must await further evidence and additional research. Because of the nature of the subject, confirmation of the hypothesis cannot be expected to be readily available.

The sources of basic information are primarily statements made by Soviet officials. Some of the analysis of the investment categories of the residue does presuppose a consistent usage of planning categories and terminology, except in the cases noted in the text, by the several authors of the statements used in the analysis. The possibility that this consistency of usage does not exist is always present, but it need not preclude an attempt to present a hypothesis based on an assumption of reasonable consistency. Additional research and data in the future will provide a further test of the hypothesis presented in this research aid and of the assumptions underlying it.

II. Gross Residues in Capital Investment, 1952-58 and 1959-65

The speeches of Khrushchev on 14 November 1958 and 27 January 1959 gave comprehensive listings of the purposes to which Soviet state capital investment was directed during 1952-58 and to which it is intended to be directed during 1959-65. Interest is immediately aroused by the fact that his specific listings of branches of the economy receiving "productive" investment do not exhaust the totals of money explicitly given for "productive" investment during the same periods.* He fails to account for 243 billion rubles of state investment for 1952-58, and he does not identify the uses for 188 billion rubles for 1959-65.**

* These totals were given as 821 billion rubles for 1952-58 and 1,488 billion to 1,513 billion rubles for 1959-65. For discussion, see Table 5, footnote c, p. 17, below.

** The total for 1959-65 is derived by subtracting the midrange data for enumerated investment uses from the over-all midrange investment total -- that is, 1,958 billion rubles (see Table 5, p. 16, below).

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The unaccounted for figures are too large merely to represent investment in minor branches of the economy. Thus they may represent investment that Khrushchev does not wish to talk about. It is the latter possibility which makes analysis of his statements a matter of special interest.

The first step undertaken was to examine unidentified investment as closely as possible in an attempt to isolate and subtract some of the more identifiable components, such as agriculture. After all possible had been done to that end, an attempt was made to identify the remainder.

The following tabulation presents an identification of the contents of the unidentified investment:

	<u>1952-58</u>	<u>1959-65</u>
1. Investment in state agriculture	x	
2. Investment in nonferrous metal-lurgy	x	x
3. Investment in internal trade	x	x
4. Investment in minor industries	x	x
5. Investment for government administration and public organizations	x	x
6. Investment in industries producing major military end items	x	x
7. Capital investment for the military services and for civil defense	x	x

Items 1 through 5 are known to be in the gross investment residuals, and items 6 and 7 would be presumed to be in if they were classified as capital investment within the total cited and not already included in one of the categories detailed by Khrushchev. If, therefore, after estimating 1 through 5, a substantial residual still remains, there is a strong presumption that it would consist of items 6 and 7.

III. Separation of Estimated Investment from the Gross Residues

The process employed to separate estimated Soviet investment from the gross residues consisted of making estimates of state productive investment in state agriculture, nonferrous metallurgy, internal trade,

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minor industries, and government administration (including legal institutions and general geological survey) and subtracting these estimates from the gross residues. The results are summarized in Table 1.

Table 1

Soviet State Capital Investment, and Gross and Net Investment Residues
1952-58 and 1959-65

Billion Revised July 1955 Rubles

	<u>1952-58</u>	<u>1959-65</u> <u>Midrange</u>
Total state capital investment	1,072	1,958 <u>a/</u>
Enumerated by Khrushchev according to use	829	1,770
Not specified, gross residue	243	188
Estimates of components		
State agriculture	115	<u>b/</u>
Nonferrous metallurgy	22	50
Internal trade	7	13
Minor industries	10	13
Government administration, legal institutions, and general geological survey	6	10
Total estimates	<u>160</u>	<u>86</u>
Net residue	83	102

a. See Table 5, footnote b, p. 17, below.

b. Not in residue.

A. State Capital Investment in Agriculture, 1952-58

Soviet state capital investment in agriculture during 1952-58 is estimated to have been about 115 billion rubles, excluding nonproductive and decentralized capital investment. This estimate was constructed from data (including decentralized investment) for 1951-58.

Productive state capital investment in agriculture (including decentralized investment) during 1951-57 was 107.7 billion rubles 1/*

* For serially numbered source references, see Appendix B.

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and 21.6 billion rubles in 1958,* yielding an 8-year total of 129.3 billion rubles. After subtracting the 1951 figure, roughly 8 billion rubles,** the derived total for 1952-58 is 121.3 billion rubles. Decentralized investment during 1952-58 is estimated to have been 6 billion rubles, primarily concentrated in the last 4 years of the period.*** Subtracting this figure from the total centralized and decentralized investment in agriculture leaves a figure of about 115 billion rubles.

B. Nonferrous Metallurgy, 1952-58 and 1959-65

Although a figure for Soviet capital investment in nonferrous metallurgy for 1959-65 was not reported by Khrushchev, a Gosplan official stated in a public lecture that this investment was to be 50 billion rubles. 6/ Another Soviet statement refers to a doubling of capital investment in nonferrous metallurgy over that of 1952-58. 7/ It is probable, however, that the doubling of output called for by the Seven Year Plan will require more than a doubling of capital investment; hence an estimate of 22 billion rubles was made for 1952-58.

C. Internal Trade, 1952-58 and 1959-65

Soviet centralized productive investment in internal trade has taken place at an annual rate of just over 1 billion rubles in recent years; the estimate for 1952-58, therefore, is 7 billion rubles. The estimate for 1959-65, 13 billion rubles, is based on the assumption that the rate of growth of this investment is equal to that of total state investments. Growth may actually be somewhat higher than average because of the planned expansion of the trade network, but the absolute error would not be great, because the investment program is small.

D. Minor Industries, 1952-58 and 1959-65

Soviet capital investment in minor industries is estimated to have amounted to no more than 10 billion rubles during 1952-58 and probably will not exceed 13 billion rubles during 1959-65.

* Productive capital investment during 1954 through 1958 was more than 97 billion rubles 2/ but was 75.4 billion rubles for 1954 through 1957 3/; thus the implied total for 1958 was more than 21.6 billion rubles.

** Capital investment during 1949 through 1953 was more than 40 billion rubles. 4/ Because 1951 was the midyear of this period, it was assumed that capital investment equaled the average of the period, or 8 billion rubles.

*** Decentralized investment is estimated to have been 3.5 billion rubles during 1956-57. 5/

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A major problem was to determine which minor industries would not be covered in those branches of industry specifically enumerated in the plan data. It is now known that capital investment in the medicinal and medical equipment industries is included in the investment allocation for health. 8/ A comparison of the nomenclature to be used for investment planning in the Seven Year Plan 9/ with the comprehensive listing of industries enumerated by Yezhov 10/ indicates that only the following industries probably remain as unspecified minor industries in the data reported by Khrushchev: printing and publishing; production of special animal feeds; some water pipe construction; toys, musical instruments, and "cultural items"; and miscellaneous.

As a considered judgment, 10 billion rubles of state investment during 1952-58 and 13 billion rubles during 1959-65 would appear to be ample. Much of the investment in these activities would be financed from local and decentralized sources and thus would not receive a significant state allocation. Printing and publishing, certainly one of the more important industries in this group, is slated to receive about 3 billion rubles in capital investment during 1959-65 11/; during 1952-58, capital investment in this industry would certainly have been less than 3 billion rubles.

E. Government, 1952-58 and 1959-65

Soviet capital investment in the organs of state administration, in legal institutions, and in general geological survey work has been estimated to have totaled approximately 6 billion rubles during 1952-58 and to be planned in the neighborhood of 10 billion rubles during 1959-65.

Capital investment in organs of state administration and in legal institutions is estimated to have totaled somewhat more than 2 billion rubles during 1952-58. This estimate was made on the basis of known investment expenditures amounting to 329 million rubles in 1950, to 347 million rubles in 1955, and to 343 million rubles in 1956, 12/ indicating a probable annual average of more than 300 million rubles.

Capital investment in general geological survey work which is not attributable to specific branches of industry is estimated to have amounted to an annual average of 500 million rubles, or a 7-year total of 3.5 billion rubles.

Even if investment in organs of state administration and legal institutions were to increase 50 percent during the next 7 years, the

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projected 1959-65 total of 10 billion rubles for governmental investment would leave ample room for a sizable expansion of investment in geological survey work.

Capital investment in the state reserves (warehousing facilities, for example), MVD activities, paramilitary organizations, and civil defense organizations cannot be broken out separately and must be left in the net residues of the capital investment structures for 1952-58 and 1959-65. Because these expenditures take on a national security aspect, their inclusion in the residues will not do violence to an attempt to reduce the net residues to categories primarily strategic or military in nature.

IV. Net Residues, 1952-58 and 1959-65

The sizes of the Soviet net residues for 1952-58 and 1959-65 are affected by two considerations: (1) error in the estimate of the components removed from the gross residues and (2) assumptions relating to the use of the ranged figures reported for 1959-65, where many investment uses are expressed in terms of a high and a low total, such as "chemicals -- 100 billion to 105 billion rubles."

A subjective evaluation of the error of estimate attached to the components estimated in III, above, is given as follows: (1) state agriculture, plus or minus 3 billion rubles; (2) nonferrous metallurgy, plus or minus 3 billion rubles; (3) internal trade, understated up to 3 billion rubles; (4) minor industries, overstated up to 2 billion rubles; and (5) government administration, legal institutions, and general geological survey, understated up to 2 billion rubles.

There is no reason to presume that these errors would be cumulative, although they have some slight bias which indicates that the net residues are somewhat more likely to be overstated than understated. This overstatement, however, is less than that implied by a sum of the lower limit of the estimates made for the individual elements removed from the gross residues. In consequence, it is possible that the net residues may be overstated by as much as 5 billion rubles for 1952-58 and 1959-65.

The ranges used by Khrushchev in presenting the capital investment data for 1959-65 presented a problem in the analysis. Although he gave a range of 30 billion rubles for over-all investment (1,940 billion to 1,970 billion rubles), the sum of the ranges given for nine specified branches of the economy amounted to 38 billion rubles. This fact implies that it is not intended that all branches

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simultaneously expend either the lower range or the higher range figure* and that some shift in relative priorities is allowed for. For this reason, it does not necessarily follow that reasonable boundaries for the residual are established by subtracting all the lower range estimates or all the upper range estimates from either the upper or the lower total figures.

In an attempt to control the complexity of the analysis while still presenting the most representative picture of the planned structure of capital investment for 1959-65, it is statistically most sound to use the midpoints of the ranges which have been given. The upper and lower limits for total state investment are no more than 1 percent from the midpoint and for investment in the coal industry, an extreme case, are no more than 4 percent from the midpoint.

In consideration of these factors, the figures of 83 billion rubles for 1952-58 and 102 billion rubles for 1959-65 (derived in Table 1**) will be considered as representative figures for the respective net residues but should not be accepted as precise figures, either for the net residue or for what will subsequently be hypothesized to be the components of the net residue.

V. Industrial and Nonindustrial Components of the Net Residues

Division of the net productive investment residues into industrial and nonindustrial components was made possible by the publication of figures for industrial productive investment for the two 7-year periods, 1952-58 and 1959-65. Industrial productive investment was reported by the USSR 13/ to have totaled 548 billion rubles for 1952-58,*** and it is to be 1,034 billion rubles for 1959-65. Subtracting announced and estimated components of industrial productive investment for 1952-58 (493.5 billion rubles) from the reported total for this investment category (548 billion rubles) leaves an unidentified residue of 54.5 billion rubles. It has been assumed that this amount represents the industrial component of the net residue of productive investment, leaving a nonindustrial component of 28.6 billion rubles for 1952-58.

* Thus the sum of all the lower range figures would not necessarily add to 1,940 billion rubles, nor would the sum of the upper range figures add to 1,970 billion rubles, if the sum of the ranges of the components exceeds the range of the total.

** P. 4, above.

*** This reported total for 1952-58 checks closely with an estimate of 550 billion rubles for this same time period which was derived independently from previously announced data.

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The publication of a single figure, 1,034 billion rubles, for industrial productive investment for 1959-65 introduces some complication into the analysis. It would be implied from Khrushchev's statements that there should be a ranged total for industrial productive investment rather than just one figure. The sum of the ranges of productive industrial investment for 1959-65 in the nine industries which he specifies is 28 billion rubles; the range which he gives for productive investment, of which industry takes more than two-thirds, is 25 billion rubles; and, finally, the range which he gives for total capital investment is 30 billion rubles.

From the data presented in Table 2, it can be seen that the range for productive capital investment for 1959-65 (25 billion rubles) is less than the 33 billion rubles which is the sum of its stated components. This difference can be explained if some flexibility of priority has been built into the plan, whereby some branches would invest the maximum and others the minimum in a given situation. This same explanation can be used to derive an estimate of the range for productive investment in industry, as a total. Assume that all industries spend the minimum of their respective investment ranges; then assume that all industries except light industry spend their maximums. This assumption would tend to conform with the historical pattern whereby heavy industry tends to spend more capital than planned, and light industry less than planned. Under the new assumption the range of productive industrial investment for total industry would be 23 billion rubles (the sum of all given ranges -- 28 billion rubles -- minus 5 billion rubles, the range for light industry).

Table 2

Summary of Ranges for Capital Investment
Given in the Soviet Seven Year Plan
1959-65

Billion Revised July 1955 Rubles

	<u>Range</u>
Total capital investment	30
Productive capital investment	25
Industrial -- sum of given components	28
Nonindustrial -- sum of given components	5
Nonproductive capital investment	5

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On the basis of this assumption the total range of productive investment (25 billion rubles) would be composed of a range of 23 billion rubles for industrial investment (the sum of the differences between the upper and lower limits if all industries except light industry spent the maximum) and a range of 2 billion rubles for the nonindustrial investment. This latter figure assumes a maximum expenditure for investment by transport and communications and minimum expenditures elsewhere within the nonindustrial sector. Although equally good cases might be made for other numerical ranges as being appropriate for productive investment in industry as a total, the differences which they would introduce in the final results would be small.

This digression into the complexities of range analysis is necessary because, having established that a ranged target is probably appropriate for capital investment in industry, it is necessary to determine where the given figure of 1,034 billion rubles lies in reference to that range -- that is, whether it represents the upper limit, lower limit, or midpoint.

Table 3 summarizes the different estimates of the industrial component of the residue of net productive investment, based on midpoint analysis, if the 1,034 billion rubles is taken to be the upper limit, lower limit, or midpoint, respectively, of a range of 23 billion rubles for 1959-65.

Table 3

Derivation of Soviet Industrial Net Residues
1952-58 and 1959-65

		Billion Revised July 1955 Rubles		
		1959-65		
		Alternative A 1,034 + 1,057	Alternative B 1,022.5 + 1,045.5	Alternative C 1,011 + 1,034
		2	2	2
Total industrial	548	1,045.5	1,034	1,022.5
Enumerated and estimated indus- tries (midpoint)	493.5	1,013	1,013	1,013
Net industrial residue	54.5	32.5	21	9.5

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On the assumption that the figure of 1,034 billion rubles is the lower limit of the range of industrial productive investment (and the further assumption that the range is 23 billion rubles), after subtraction of industries for which investment plans are known or estimated, the industrial component of the net residue of productive investment would be 32.5 billion rubles (Alternative A, Table 3) for 1959-65. On the assumption that the 1,034 billion rubles represent the midpoint of the appropriate range, the industrial component would be 21 billion rubles (Alternative B, Table 3). Finally, on the assumption that the 1,034 billion rubles represent the upper limit of the appropriate range, the industrial component would be only 9.5 billion rubles (Alternative C, Table 3).

Subtracting these alternative estimates of the industrial component from the total net residue of productive investment leaves the following estimates of the nonindustrial component: Alternative A, 69.5 billion rubles; Alternative B, 81 billion rubles; and Alternative C, 92.5 billion rubles (see Table 4).

Table 4

Alternative Constructions of the Composition
of the Soviet Investment Residues
1959-65

Billion Revised July 1955 Rubles				
		1959-65		
	1952-58	Alternative A	Alternative B	Alternative C
Total residue	83.1	102.0	102.0	102.0
Industrial residue	54.5	32.5	21	9.5
Nonindustrial residue	28.6	69.5	81	92.5

For 1959-65, in contrast to 1952-58, Alternative A implies a 40-percent reduction in the industrial component and a 143-percent increase in the nonindustrial component of the net residue. Alternative B implies a 61-percent reduction and a 183-percent increase, respectively. Alternative C implies an 83-percent reduction and a 223-percent increase, respectively. Under any of the three alternatives, the industrial component of the net residue is reduced by at least 40 percent from the 1952-58 total, and the nonindustrial component is increased by at least 143 percent.

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VI. Nature of the Residues

The unidentified net productive investment residues for the two 7-year periods are great enough to attract attention and to stimulate speculation as to the nature and purpose of this investment. Indeed, their very size, about 10 percent of total productive investment for 1952-58 and not quite 7 percent for the plan period 1959-65, would seem to preclude their being explained as investment in minor programs which the leadership has not bothered to describe. Moreover, earlier in this research aid, efforts were directed to estimating many of the minor programs which would normally be included in such a lumping together of secondary investment, and these were seen to amount to only a fraction of the unidentified totals for the two periods. Speculation as to the nature of these investment residues is further stimulated by the large shift from the industrial component to the nonindustrial component from the first 7-year period to the second.

These investment residues are defined arbitrarily as "productive" by virtue of the distinction which Khrushchev made between productive and nonproductive investment in his presentation of the Seven Year Plan investment goals. "Nonproductive" investment was defined by him to include only investment in housing and communal construction, education, culture, and health. All other investment was defined to be "productive." If, as is assumed here, the investment figures given by Khrushchev include all investment carried out in 1952-58 and planned for 1959-65, it would seem that all military-oriented investment (as well as that associated with the Soviet atomic energy program) was consolidated into the "productive" category. In this event, the publication of data relating to industrial productive investment (if the figures are consistent with those used by Khrushchev), by permitting the division of the productive investment residues into industrial and nonindustrial components, defeats somewhat the concealment intended by not specifying the uses of all productive investment.

There is, unfortunately, no definitive basis at this time for allocating the productive investment residue to specific activities. It is significant, however, that four eligible industries were not included in the category of machine building for purposes of investment planning in the Seven Year Plan* and may not have been included in the total of investment in machine building as stated by Khrushchev. These industries are aviation, shipbuilding, radiotechnical, and weapons and armaments, including facilities for the production of nuclear weapons.

* See Appendix A. 14/

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There is some evidence supporting the view that capital investment in these industries, at least in greater part, is indeed in the unidentified investment residues. This evidence suggests that the 65 billion rubles invested, according to Khrushchev, in the machine building industry during 1952-58 would be adequate to cover little more than investment in the civilian-oriented segment of the industry, which is financed by the republics.* Thus the republics planned to spend 12 billion rubles on machine building capital investment in 1958, 15 of which some 10 billion rubles would be classified as productive. Assuming a 66-percent increase in investment since 1952, which is consistent with evidence of a relatively slow increase in investment during the period, the 1958 figure would be consistent with a total of approximately 55 billion rubles for 1952-58.

The 10-billion-ruble difference between this total of 55 billion rubles and the 65 billion rubles announced by Khrushchev for machine building would not be adequate to finance capital investment in aviation, shipbuilding, the radiotechnical industry, and weapons and armaments, which are industries not financed through the republic budgets. Thus it seems likely that the greater part of investment in these industries is included in the industrial component of the unidentified investment residues for 1952-58, and probably those for 1959-65. It is also possible that these industries are so defined as to include capital investment in other programs, such as investment in capacity for the production of missiles and for nuclear weapons.

With respect to the nonindustrial components of the residues, it was noted earlier that investment in facilities for the state reserves, MVD activities, paramilitary organizations, and civil defense were included. These activities, however, do not appear to be sufficient explanation for investment in the quantity implied (70 billion to 92 billion rubles for 1959-65). One possible explanation consistent with the assumptions already made would be the inclusion of investment in fixed military facilities, airfields, naval ports, military bases, and perhaps missile bases and warning systems.

Table 5** shows the distribution of Soviet state capital investment in 1952-58 and the planned state capital investment for 1959-65.

VII. Conclusions and Conjectures

It appears that a block of investment has been isolated from the investment data for 1952-58 and for 1959-65 which cannot be explained in terms of the miscellaneous and minor programs which leaders do not bother to describe. It is hypothesized that this block may represent

* The military segment is financed primarily by the central government.

** Table 5 follows on p. 16.

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capital investment in four military-oriented industries (aviation; shipbuilding; radiotechnical; and weapons and armaments industries, including facilities for the production of nuclear weapons and missiles) and capital investment in military facilities (bases, ports, airfields, and launching sites) as well as some other uses, including presumably MVD operations, state reserves warehouses, and civil defense.

The total residue of productive investment was divided into industrial and nonindustrial components for 1952-58. The ambiguity of the data for 1959-65 makes it more difficult to establish this division in satisfactory fashion. Even so, the results of this analysis indicate that the industrial component will be reduced in its absolute level for 1959-65 compared with 1952-58 and that there will be a major expansion of capital investment in the nonindustrial component.

A decrease in absolute expenditures for capital investment in military-oriented productive facilities during 1959-65 compared with 1952-58 can be explained on the basis that the big push to expand capacity from new construction is past its peak. Presumably, in the future some facilities will be modified and some new special-purpose facilities constructed, but the implication is that the USSR is approaching possession of adequate productive facilities to support its planned weapons program, as foreseen at the time of the Twenty-first Party Congress in early 1959. It is within expectation that substantial increases in production of military materials can be expected from more efficient utilization of existing productive capacity. Therefore, a reduced need for new construction does not imply a corresponding reduction in the growth of production of military end items.

The indicated sharp increase in nonindustrial expenditure, for construction of military facilities, is consistent with a hypothesis of a major expansion of missile base facilities during 1959-65 in the USSR, probably accompanied by expansion of warning systems and civil defense. The latter adjuncts alone, however, would not be sufficient explanation for expenditures on this scale. There is no indication of a proposed expansion of port or airfield construction of a scale sufficient to explain the increase. A preoccupation with expansion of Soviet missile delivery systems implies anticipation of an extensive availability of operational missile systems during 1959-65.

The next step for analysis must be a testing of the hypothesis, stated above, that the unspecified productive investment is indeed associated with Soviet military programs. Such a testing could proceed on two fronts. There would first be the search for additional information and evidence relating this investment to the uses hypothesized. It does not seem likely, in light of the classified nature of the

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problem, that success would be found along these lines. A second line of attack would be to examine carefully the current estimates of Soviet military capabilities, present and 1965, and to deduce the investment programs required to achieve the 1965 capability. This should be done with particular reference to the required expansion of productive facilities in military industries and to expenditures required for base and launching site construction.

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Table 5

Soviet State Capital Investment
1952-58 Actual and 1959-65 Plan

Billion Revised July 1955 Rubles			
	1952-58	1959-65 Midpoint of Given Ranges	1959-65 As Given
Total state capital investment	1,072 <u>a</u> /*	1,958	1,943 to 1,973 <u>b</u> /
Productive	812 <u>c</u> /	1,500	1,488 to 1,513 <u>d</u> /
Industrial <u>e</u> /	548	A: 1,045.5 B: 1,034 C: 1,022.5	
Ferrous metallurgy	40.8 <u>f</u> /	100	100 to 105 <u>g</u> /
Chemicals	19.9 <u>f</u> /	102	170 to 175 <u>g</u> /
Gas and oil	72.2 <u>f</u> /	172	75 to 80 <u>h</u> /
Coal	61.2 <u>f</u> /	78	
Electric power and transmission	75.1 <u>f</u> /	127	125 to 129 <u>g</u> /
Machine building (civilian)	65.5 <u>f</u> /	118	118 <u>f</u> /
Logging, paper, and wood products	25.3 <u>f</u> /	59	58 to 60 <u>g</u> /
Light and food	40.0 <u>f</u> /	83	80 to 85 <u>g</u> /
Construction and construction materials	61.5 <u>f</u> /	111	110 to 112 <u>g</u> /
Nonferrous metallurgy	(22) <u>i</u> /	(50)	50 <u>j</u> /
Minor industries	(10) <u>k</u> /	(13) <u>k</u> /	13 <u>k</u> /
Net industrial residue	(54.5) <u>l</u> /	A: 32.5 B: 21 C: 9.5 <u>l</u> /	

* Footnotes for Table 5 follow on p. 17.

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Table 5

Soviet State Capital Investment
1952-58 Actual and 1959-65 Plan
(Continued)

	Billion Revised July 1955 Rubles		
	1952-58	1959-65 Midpoint of Given Ranges	1959-65 As Given
Nonindustrial	264 <u>m</u> /	A: 454.5 B: 466 C: 477.5 <u>n</u> /	
Transport and communications	107.4 <u>f</u> /	212	209 to 214 <u>f</u> /
State agriculture	(115) <u>o</u> /	150	150 <u>g</u> /
Internal trade	(7) <u>p</u> /	(13) <u>p</u> /	
Government administration, legal institutions, and general geological survey	(6) <u>q</u> /	(10) <u>q</u> /	
Net nonindustrial residue	(28.6) <u>l</u> /	A: 69.5 B: 81.0 C: 92.5 <u>l</u> /	
Nonproductive (as given)	260 <u>f</u> /	458	455 to 460 <u>f</u> /
Housing, communal	214 <u>f</u> /	378	375 to 380 <u>f</u> /
Education, culture, and health	46 <u>f</u> /	80	80 <u>f</u> /

a. Subsequent revisions have reduced this figure, given in source 16/, to 1,066, given in source 17/. The latter figure cannot now be used, because it is not known what branch estimates have been revised downward and our primary interest is in the branch structure of the total.

b. Given as 1,940 to 1,970 in source 18/. Although the Soviet officials have never bothered to change the figure, it has been adjusted upwards herein in order to reflect the corresponding investment of the nonproductive investment total in source 19/.

c. Given originally as 821 in source 20/. Since later announcements reflecting official data revision furnish an upward revision of the total for nonproductive investment (see footnote b, above)

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Table 5

Soviet State Capital Investment
1952-58 Actual and 1959-65 Plan
(Continued)

and the evidence suggests a downward revision of the total (see footnote a, above), the total for productive investment cannot be more than 1,072 minus 260, or 812. It is important to note that this problem pertains only to the total for productive investment during 1952-58 and not to the data for its components, which for the most part originate in the same source given the revised nonproductive total and hence presumably fully reflect any data revision.

- d. 21/
- e. The total for 1952-58 was given in source 22/. For discussion of alternative hypotheses (A, B, and C) for 1959-65, see V, above, and Table 4, p. 11, above.
- f. 23/
- g. 24/
- h. Although given as 75 to 78 in source 25/, the Party Draft gives this range. 26/
- i. For discussion, see III, B, p. 5, above. Figures in parentheses are estimates.
- j. 27/
- k. For discussion, see III, D, p. 5, above.
- l. For discussion, see V, p. 8, above. Error of estimate may be 15 percent for 1952-58 and more for 1959-65 unless an adequate basis is found for choosing one of the alternatives.
- m. 812 minus 548 equals 264.
- n. The nonindustrial total is necessarily affected by which alternative for the industrial mid-point is chosen.
- o. For discussion, see III, A, p. 4, above. The relatively low increase in investment which is apparent in the table is the result of a noncomparability produced by the transfer of MTS activities (within state investment during 1952-58) to kolkhozes (outside of state investment).
- p. For discussion, see III, C, p. 5, above.
- q. For discussion, see III, E, p. 6, above.

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APPENDIX A

CLASSIFICATION OF PRODUCTIVE INVESTMENT
IN THE SOVIET SEVEN YEAR PLAN*

Industrial Investment**

Ferrous metallurgy
Nonferrous metallurgy***
Coal industry
Petroleum industry
Gas industry
Electric stations and transmission
Machine construction
Aviation industry***
Shipbuilding industry***
Radiotechnical industry***
Industry of armaments and ammunition***
Chemical industry
Industry of construction materials
Forestry, paper, and wood processing
Light industry
Food industry
Construction industry
Medicinals***
Other branches of industry***

Other Productive Investment

Agriculture
Railroad transport
Sea transport
River transport
Auto transport (general nature)
Air transport
Road economy (general use)
Communications
Trade***

* 28/. The enterprise as a whole, including productive subsidiary and ancillary activities, is accredited to the appropriate branch of activity.

** Classification into industrial and other productive investment was not specified by the source.

*** Not enumerated in Khrushchev's investment data given in connection with the Seven Year Plan.

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APPENDIX B

SOURCE REFERENCES

Evaluations, following the classification entry and designated "Eval.," have the following significance:

<u>Source of Information</u>	<u>Information</u>
Doc. - Documentary	1 - Confirmed by other sources
A - Completely reliable	2 - Probably true
B - Usually reliable	3 - Possibly true
C - Fairly reliable	4 - Doubtful
D - Not usually reliable	5 - Probably false
E - Not reliable	6 - Cannot be judged
F - Cannot be judged	

"Documentary" refers to original documents of foreign governments and organizations; copies or translations of such documents by a staff officer; or information extracted from such documents by a staff officer, all of which may carry the field evaluation "Documentary."

Evaluations not otherwise designated are those appearing on the cited document; those designated "RR" are by the author of this research aid. No "RR" evaluation is given when the author agrees with the evaluation on the cited document.

Except for CIA finished intelligence, all sources used in this research aid are evaluated RR 2 unless otherwise indicated.

1. Vestnik statistiki, no 10, 1958, p. 86. U.
2. Pravda, 20 Dec 58, p. 1. U.
3. Zverev, A.G. Voprosy natsional'nogo dokhoda i finansov SSSR (Problems of National Income and Financing in the USSR), 1958, p. 134. U. Eval. Doc.

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- 25X1A
4. Pravda, 20 Dec 58, p. 1. U.
 5. CIA. ORR Project 10.2346, Soviet National Accounts, 1956 and 1957 (not published). S. 25X1A
 6. [REDACTED]
 7. Promyshlenno-ekonomicheskaya gazeta, 17 Apr 59. U.
 8. Daily Review of the Soviet Press, 21 Feb 59, citing Sovetskoye zdravookhraneniye, no 1, 1959. U.
 9. CIA. CRB 3801092, 28 Jan 59. C/NOFORN. (Encl. U.) Eval. Doc.
 10. Yezhov, A.I. Statistika promyshlennosti, 1957, p. 43-49. U. Eval. Doc.
 11. Izvestiya, 24 Dec 58. U.
 12. Finansy i sotsialisticheskoye stroitel'stvo, Moscow, 1957, p. 347, 349. U. Eval. Doc.
 13. Ivanov, N.A. "Odel'nyye voprosy razvitiya stroitel'noy industrii v 1959-65 gg.," Promyshlennoye stroitel'stvo, no 1, 1959, p. 5. U.
 14. CIA. CRB 3801092, 28 Jan 59. C/NOFORN. (Encl. U.) Eval. Doc.
 15. Pravda, 20 Dec 58, p. 94. U.
 16. [REDACTED]
 17. Vestnik statistiki, no 4, 1959, p. 93. U.
 18. [REDACTED]
 19. Ibid., 29 Jan 59, Supplement 3, p. 114. OFF USE.
 20. Ibid., 17 Nov 58, p. 47-48. OFF USE.
 21. Ibid.
 22. Ivanov, op. cit. (13, above).
 23. [REDACTED]
 24. Ibid., 13 Feb 59, Supplement 14, p. 1119-1121. OFF USE.
 25. Ibid.
 26. Ibid.
 27. [REDACTED]
 28. CIA. CRB 3801092, 28 Jan 59. C/NOFORN: (Encl. U.) Eval. Doc.
- STATSPEC
- STATSPEC
- STATSPEC
- 25X1A

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